CHAPTER

2

The Economic Outlook

The Congressional Budget Office believes that the economy will continue its modest recovery this year and will return to more robust growth next year. Real (inflation-adjusted) gross domestic product is expected to grow by 2.3 percent in calendar year 2002 and by 3.0 percent in 2003 (*see Table 2-1 and Figure 2-1*). However, the unemployment rate may not fall very far below 6 percent until the second half of 2003. Price inflation as measured by the consumer price index for all urban consumers (CPI-U) is projected to rise from 1.7 percent this year to a modest 2.4 percent in 2003. Interest rates on 10-year Treasury notes are expected to average 4.9 percent in 2002 and 5.4 percent in 2003.

The persistence and vigor of the recovery are uncertain. A big question is the impact of the stock market's large drop since March, which risks depressing consumption and investment by more than the effects incorporated in the current forecast. Other major unknowns are the extent to which the collapse in investment during the recession has eliminated businesses' excess productive capacity, and the prospects for and implications of volatility in business, consumer, and investor confidence. Foreign demand also remains uncertain. Overlaying these concerns are the evident risks of further terrorist acts and a widening of the war on terrorism.

CBO's medium-term projections, spanning the period 2004 through 2012, have changed little since March, and what changes there have been largely result from the annual July revision to the national income data maintained by the Bureau of Economic Analysis (BEA). CBO still expects the growth of real GDP to average 3.2 percent over the period. But because the July revision lowered the estimated level of real GDP in 2001, CBO's new projection of the level in 2012 is $12,844 billion, or almost 1 percent below its earlier estimate. The shares of national income devoted to wages and salaries and to profits—categories that are taxable at high rates and thus produce substantial revenues—are also smaller than those CBO projected in March.

Recent Economic Developments

The economy is still adjusting to the repercussions of the boom in investment of the late 1990s. Expectations of surges in output, profits, and income, fostered in part by genuine gains in productivity, inflated corporate stock prices and boosted investment by businesses to ever-higher levels. Consumer spending also grew rapidly in response to a solid expansion in real income and burgeoning gains in stock market wealth, and the personal saving rate fell by approximately half. As those economic indicators reached unsustainable levels, stock prices began to fall in 2000, and spending plans were cut back. Inventories of unsold goods built up quickly, forcing businesses to reduce spending further and to cut their prices. In the first quarter of last year, the economy entered a recession.

The slowdown turned out to be relatively mild, in large measure because fiscal and monetary policymakers took vigorous and timely action to bolster the economy. The personal income tax rebates in the late summer and fall of 2001 pushed up disposable personal income and supported consumer spending. The Federal Reserve lowered

Table 2-1.

CBO's Current and Previous Economic Projections for Calendar Years 2002 Through 2012 (Corrected, August 26, 2002)

	Actual	Forecast		Projected Annual Average	
	2001	2002	2003	2004-2007	2008-2012
Nominal GDP (Billions of dollars)					
August 2002	10,082	10,429	10,912	13,414[a]	17,358[b]
March 2002	10,206	10,521	11,092	13,639[a]	17,532[b]
Nominal GDP (Percentage change)					
August 2002	2.6	3.4	4.6	5.3	5.3
March 2002	3.4	3.1	5.4	5.3	5.1
Real GDP (Percentage change)					
August 2002	0.3	2.3	3.0	3.2	3.1
March 2002	1.2	1.7	3.4	3.2	3.1
GDP Price Index (Percentage change)					
August 2002	2.4	1.1	1.6	2.0	2.1
March 2002	2.2	1.4	2.0	2.0	2.0
Consumer Price Index[c] (Percentage change)					
August 2002	2.8	1.7	2.4	2.5	2.5
March 2002	2.9	1.8	2.5	2.5	2.5
Unemployment Rate (Percent)					
August 2002	4.8	5.9	5.9	5.3	5.2
March 2002	4.8	6.1	5.9	5.2	5.2
Three-Month Treasury Bill Rate (Percent)					
August 2002	3.4	1.7	2.9	4.9	4.9
March 2002	3.4	2.2	4.5	4.9	4.9
Ten-Year Treasury Note Rate (Percent)					
August 2002	5.0	4.9	5.4	5.8	5.8
March 2002	5.0	5.0	5.5	5.8	5.8
Tax Bases (Percentage of GDP)					
Corporate book profits					
August 2002	6.6	5.9	6.1	8.2	8.3
March 2002	7.1	6.9	7.2	7.9	8.1
Wages and salaries					
August 2002	49.1	48.3	48.4	48.4	48.4
March 2002	50.0	49.8	49.9	49.3	48.9
Tax Bases (Billions of Dollars)					
Corporate book profits					
August 2002	670	611	666	1,166[a]	1,408[b]
March 2002	720	730	803	1,101[a]	1,425[b]
Wages and salaries					
August 2002	4,951	5,034	5,282	6,498[a]	8,408[b]
March 2002	5,098	5,243	5,538	6,695[a]	8,565[b]

Source: Congressional Budget Office.

Notes: The March 2002 values for GDP and its components are based on data from the national income and product accounts before the July 2002 revision. However, some of the numbers for March 2002 in the printed version of this table were inadvertently drawn from CBO's January forecast. They are corrected here.

Percentage changes are year over year.

Year-by-year economic projections for calendar years 2002 through 2012 appear in Appendix B.

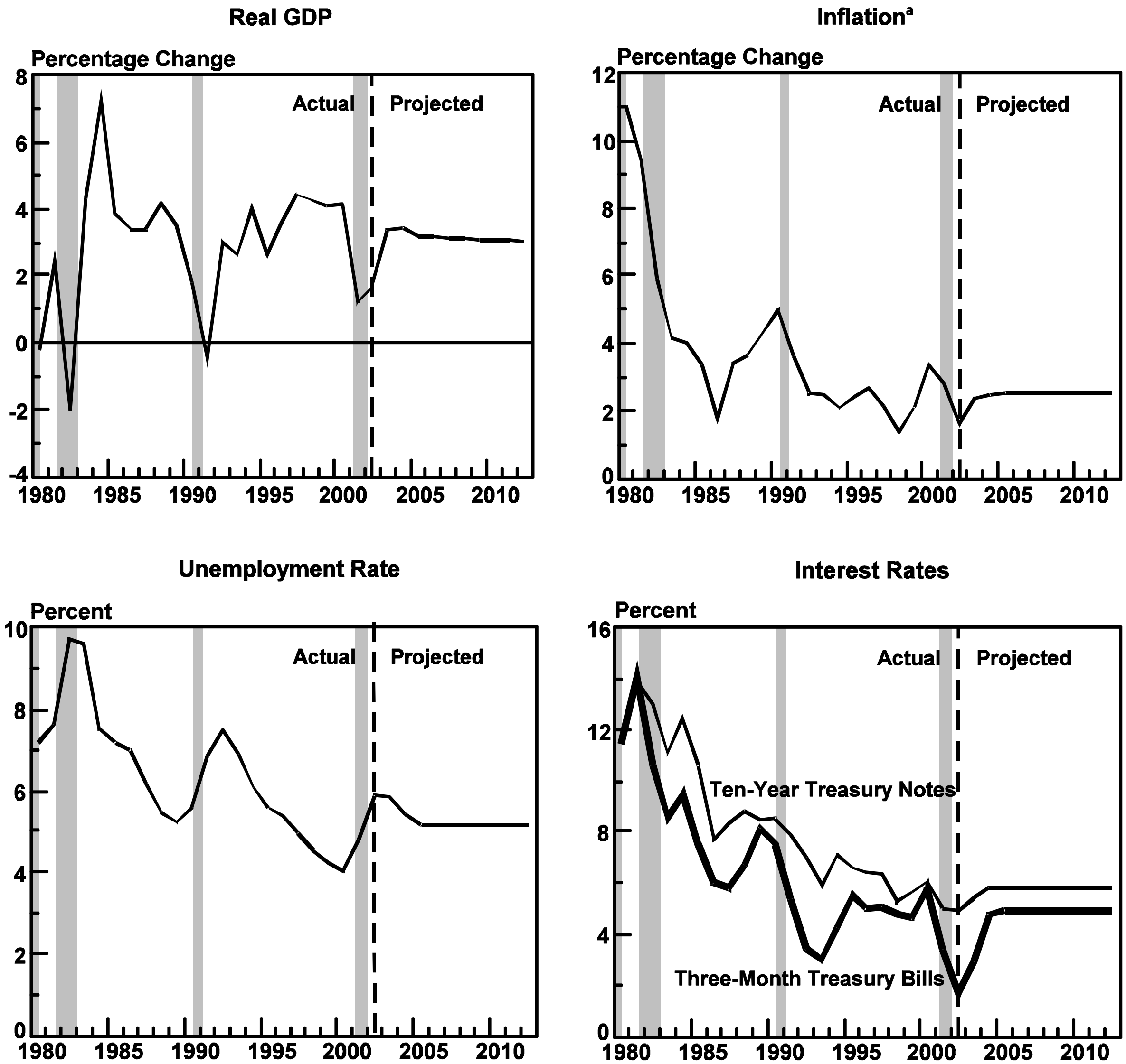
a. Level in 2007.

b. Level in 2012.

c. The consumer price index for all urban consumers.

Figure 2-1.

The Economic Forecast and Projections



Sources: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis; Department of Labor, Bureau of Labor Statistics; Federal Reserve Board.

Notes: All data are annual values; percentage changes are year over year.

The trough of the latest recession is assumed to be at the end of 2001.

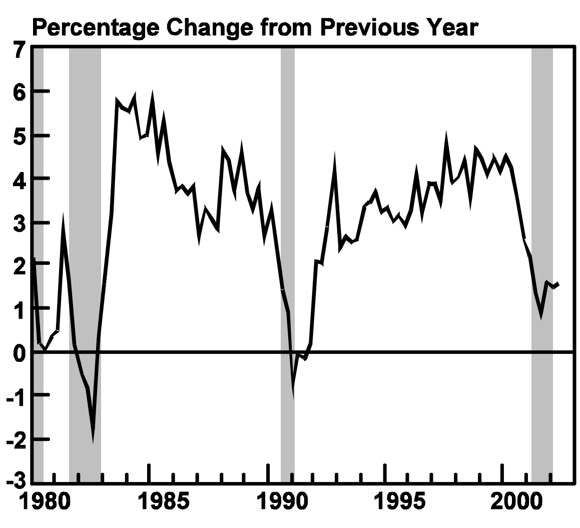
a. The change in the consumer price index for all urban consumers, applying the current methodology to historical price data (CPI-U-RS).

its target for the federal funds interest rate (the overnight rate for banks' loans to other banks) from 6.5 percent at the end of 2000 to 1.75 percent in December of last year, and market rates fell in turn. Interest rates on conventional fixed-rate home mortgages in particular fell to very low levels, and the drop spurred home sales and raised mortgage refinancing to record high levels. Lower interest rates had little effect on businesses' investments in plant and equipment, however, because firms—especially those in the information technology sector—had created excess capacity during the boom.

The economy began to turn around late last year. Consumer spending on motor vehicles increased dramatically, responding to low-interest financing offers from auto manufacturers—which then sharply reduced their inventories and boosted output. Real federal spending on national defense, homeland security, and disaster recovery also climbed rapidly in the aftermath of the terrorist attacks in September. Nevertheless, the growth of total final demand during the recovery has remained weak (*see Figure 2-2*). Measured as real final sales (output minus inventory investment), real final demand rose at an average annual rate of only 2.1 percent from the third quarter of 2001 to the second quarter of this year—well below estimates of the pace at which the economy's productive capacity can expand. Excluding government spending, real private final demand has been weaker still, rising by only 1.3 percent (measured as an annual rate) during the same period.

Figure 2-2.

Real Final Demand



Sources: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis.

Note: Real (inflation-adjusted) final demand is real GDP minus the real change in business inventories.

Since the first quarter of this year, dwindling confidence in the durability of the recovery and the reliability of corporate financial reporting has threatened to derail the expected economic upturn. Stock price indexes fell by more than 20 percent from March to July, reducing consumer wealth by upwards of $2 trillion and raising the cost of capital for businesses. Combined with additional uncertainty about the likelihood of future terrorist attacks and military action, the drop in stock prices over the past five months is likely to restrain consumers' and businesses' spending in the near term.

Financial Conditions and Monetary Policy

The financial environment appears less likely, on balance, to encourage economic activity in the near term than CBO expected last March. Partially offsetting the slower spending caused by the decline in the stock market will be monetary policy that is "easier" (more stimulative) than anticipated and the recent, unexpected fall in the dollar. The Federal Reserve has kept the overnight federal funds rate exceptionally low (1.75 percent) since December 11, 2001. And the drop in the dollar should help U.S. firms compete with foreign producers. Nevertheless, the net effect of financial developments since March is still negative.

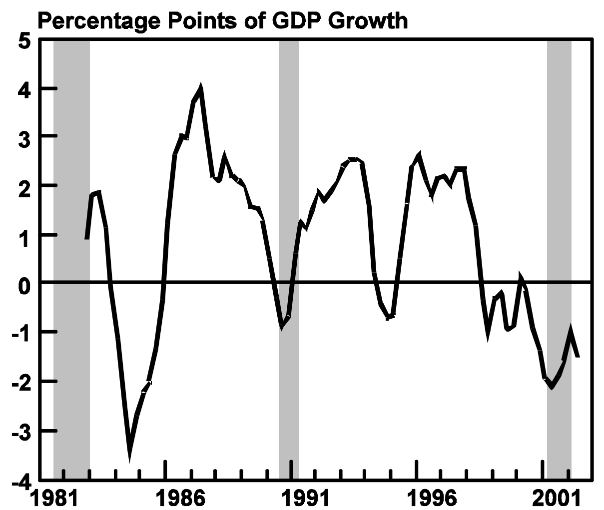
One way to assess overall financial conditions is to use an index, such as the one calculated by Macroeconomic Advisers (a private forecasting firm), to combine the stance of monetary policy with a quantitative assessment of the channels through which it operates (*see Figure 2-3*). The index draws on statistical relationships between GDP and financial variables such as interest rates, exchange rates, and stock market measures. Currently, it suggests that despite the Federal Reserve's policies, financial conditions today are not much better than they were at the beginning of 2001, because most of the strengthening effect of the decline in short-term interest rates has been offset by the drop in the stock market. In addition, the power of monetary policy to stimulate interest-sensitive expenditures may be limited if the demand for consumer durable goods is already largely satisfied and businesses remain cautious about capital spending.

The Stock Market. Stock price indexes have not only fallen substantially this year—back to levels that were last seen in 1997—but they have also been quite volatile. For example, Standard & Poor's index of 500 stocks (the S&P 500) lost about one-quarter of its value from the end of March to early August, erasing what the market had regained in the aftermath of the terrorist attacks. Investors may have reassessed their assumptions about the prospects for earnings, particularly in high-technology sectors, in the light of recent economic news and revelations of accounting irregularities. Some analysts see gains ahead for stocks, but others continue to ponder whether, despite the declines, stocks are still valued on the high side (*see Box 2-1*).

Interest Rates. The financial markets' expectations of near-term strength in the economy have soured, and concerns about the riskiness of many businesses have risen. In response, many investors have turned to the relative safety of low-risk bonds, which has pushed up bond prices and brought down the rates of return that they pay. Thus, long-term interest rates on low-risk government and investment-grade bonds have drifted down from their levels in March. However, some business borrowers—particularly firms whose bonds are considered non-investment-grade, or more risky—must continue to include a sizable risk premium in their rates in order to find investors (*see Figure 2-4*). Bigger premiums are also required for the debt of corporations that are suspected of unreliable financial reporting or are thought to be facing downgrades in their bonds' ratings.[1] Because of the increases in risk premiums, few businesses have seen their cost of borrowing fall by as much as the rate on 10-year government notes.

Figure 2-3.

An Index of Monetary and Financial Conditions

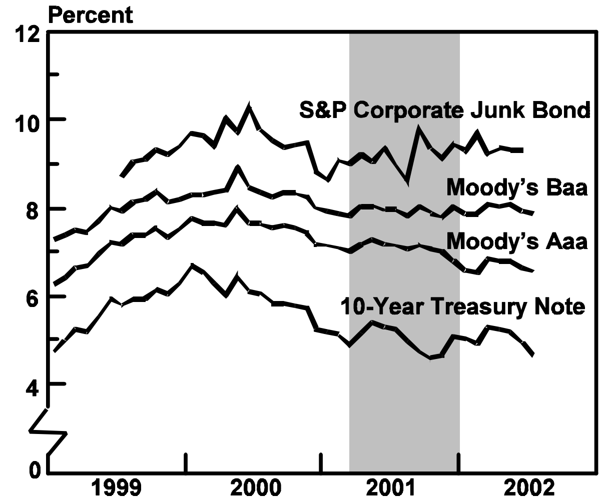


Sources: Congressional Budget Office; Macroeconomic Advisers, LLC.

Note: The index measures how financial variables such as interest rates, stock prices, and the stock market affect the growth of real (inflation-adjusted) GDP.

Figure 2-4.

Rates on Treasury Notes and Corporate Bonds



Sources: Congressional Budget Office; Federal Reserve Board; Standard & Poor's.

Note: Aaa is Moody's highest investment-grade bond; Baa is Moody's lowest investment grade. The grade on Standard & Poor's corporate junk bond is BB+.

1. Private companies, such as Moody's, Standard & Poor's, Fitch, and others, provide ratings of corporations and of state, local, and national governments that investors can use to judge the riskiness of bonds and other liabilities issued by those borrowers. The higher the rating, the less likely is the borrower to default on the liability; a downgrade in the rating means that the likelihood of default has increased.

Box 2-1.

Gauging Stock Market Wealth

Large swings in stock prices, such as those occurring this year, can appreciably affect the growth rate of the economy over the two-year period of the Congressional Budget Office's forecast. Stock market wealth, as a large part of household wealth, affects how much consumers spend; stock prices also influence the investment decisions of corporations. The nature and magnitude of those effects will depend on whether the recent sharp fall in stock prices is seen as temporary or relatively permanent and on whether prices continue to drop or reverse course.

But the great volatility in stock prices and dramatic rise and subsequent fall of broad stock market measures have left most observers wondering if any view of where stock prices are headed can be taken seriously. Stock valuations gauge the returns to the investor: the standard notion is that the expected return from holding stocks should approximate the expected return from holding default-free securities (such as Treasury debt) over the same period, plus a "risk premium" to compensate for the possible default of the stock issuer and other risks associated with owning stocks. The expected return to investors in any period consists of the dividends they anticipate from the firm's earnings combined with the appreciation in the stock's price that they hope will result from the company's fruitful reinvestment of its retained earnings (earnings less dividends).

Historically, support for that standard method of valuation is found in the approximately similar trends of stock prices, earnings, and (until recently) dividends (see the figure). Thus, changes in the current value of a company's stock should vary directly with altered views about its prospective earnings and dividends and inversely with changes in interest rates and the risk premium attached to the stock. As the recent revelations about accounting and management irregularities have affirmed, investors' valuations will depend heavily on information about any event—including but not limited to news about earnings—that bears significantly on a company's prospects.

Although analysts might agree on the elements of the standard view, they often disagree strongly on how the elements fit together to determine stock prices. For example, economists differ widely about the ratio of stock prices to earnings—the P/E ratio—that should prevail over long periods. Their disagreements imply broadly contrasting ideas about the overall value of stock market wealth. Robert Shiller, a professor at Yale University, has concluded from his research that stock prices will eventually adjust to an average P/E ratio just shy of 15 over the long run.[1] That assessment gains credibility from Shiller's accurate prediction, in 1996, of an eventual collapse in stock prices.

By contrast, Jeremy Siegel, of the Wharton School of the University of Pennsylvania, has concluded that a P/E value in the low 20s is now more appropriate; his opinion is based on today's lower transaction costs, low inflation, and favorable tax rates for capital gains.[2] Applying his hypothesis to earnings would imply that stock prices should be more than 33 percent higher than the level suggested by Shiller. In even greater contrast, Kevin Hassett and James Glassman of the American Enterprise Institute suggest that higher P/Es, arguably three to five times higher than those already mentioned, could prevail should investors come to believe that long-term stock returns were potentially as safe as the returns on assets such as bonds.[3]

1. For more details, see John Y. Campbell and Robert J. Shiller, "Valuation Ratios and the Long-Run Stock Market Outlook: An Update," NBER Working Paper No. 8221 (Cambridge, Mass.: National Bureau of Economic Research, April 2001).

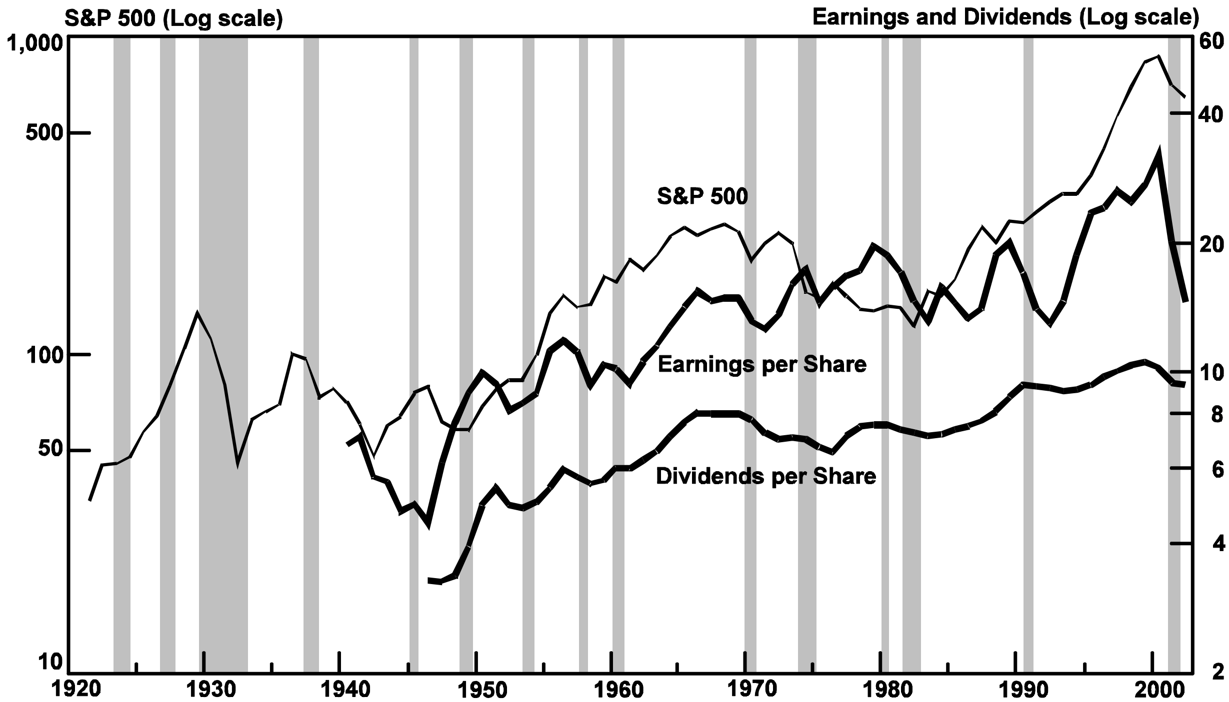
2. Siegel discusses his ideas in "Stocks Are Still an Oasis," *Wall Street Journal*, July 25, 2002.

3. See James Glassman and Kevin Hassett, *Dow 36,000: The New Strategy for Profiting from the Coming Rise in the Stock Market* (New York: Crown Publishing Group, 1999).

Box 2-1.

Continued

Stock Prices, Earnings, and Dividends



Source: Congressional Budget Office based on data from Standard & Poor's and the Department of Labor's Bureau of Labor Statistics.

Notes: Values are deflated by the consumer price index. S&P500 = Standard & Poor's index of 500 stocks.

Analysts can also disagree about how to measure prospective earnings. Studies of long-run trends have typically used observed earnings, measuring the P/E ratio as the stock's price relative to 12 months of "trailing" earnings (from the previous 12 months). However, analyses of short-term movements have focused on expected earnings (estimated, for example, by using earnings projections over the next 12 months) to gauge whether stock prices are at an "appropriate" level. In mid-2002, the so-called trailing P/E ratio for Standard & Poor's index of 500 stocks was 47 percent higher than the "expected" measure, raising the perplexing question for investors of whether future earnings forecasts were too optimistic or current stock prices too low.

Recently, however, more serious questions about the veracity of earnings statements have accentuated the stock market's decline. A reliable measure of earnings is necessary for judging whether stock values are appropriate; unreliable earnings measures and even allegedly fraudulent circumventions of accounting standards have led to several prominent corporate debacles that hurt not only the stocks of those companies but the stocks of other firms that investors thought resembled them. If the stock market's recent decline reflects in part an adjustment to lower, more-accurate measures of earnings, that decline might not be fully reversed.

Expected Monetary Policy. Given the question marks currently dotting the economic landscape, financial markets do not expect the Federal Reserve to raise its target for the federal funds interest rate until early 2003. In testimony before the Congress in July, Federal Reserve Chairman Alan Greenspan indicated the readiness of the Federal Open Market Committee to limit the risks of a further downturn for the economy by maintaining an accommodative stance "pending evidence that the forces inhibiting economic growth are dissipating enough to allow the strong fundamentals to show through more fully."[2] That policy position remains a crucial underpinning to hopes of a continuing economic recovery.

Fiscal Developments

At the federal level, fiscal developments have supported the economy's recovery from recession, but the stimulative contribution of the state and local sector is declining as their budget situations deteriorate. Legislative action on an economic stimulus package this year added to the fiscal boost already present in the federal budget. Indeed, shortfalls in April's revenue collections suggest that the additional stimulus provided by the automatic stabilizers (discussed later) may have been greater than was previously thought, although the data required to fully analyze the weakness in revenues are not yet available. Similar declines in revenue collections by states and localities are likely to spur additional tax hikes and cuts in spending to meet balanced-budget requirements in most jurisdictions.

Government purchases of goods and services have helped bolster GDP growth in recent quarters. After shrinking during most of the 1990s, real federal spending on goods and services accelerated in 2001, spiking in the fourth quarter in the aftermath of September 11. Purchases then grew rapidly in the first half of 2002—measured at an annual rate, by 7.4 percent; that growth was concentrated in the defense sector. Next to residential investment, federal spending has been the fastest-growing component of output thus far this year, outstripping real consumer spending, which rose at an annual rate of 2.5 percent in the first half, and fixed nonresidential investment, which declined by more than 3 percent. Despite the increasingly constrained budgets of many states and localities, there is little evidence yet that they have sharply reduced their spending.

Federal Fiscal Stimulus. Since the downturn, the economy has benefited from fiscal stimulus that has been both unusually large and timely. Tax rebates began in July 2001, only four months after the official start of the recession in the previous March. (In other recessions, lags in recognizing the need for stimulus and in the legislative process delayed stimulative action until the recovery was already under way.) Additional stimulus came from emergency spending in the wake of the terrorist attacks and from lower rates of withholding from paychecks this year—part of a series of tax rate cuts enacted in the Economic Growth and Tax Relief Reconciliation Act of 2001, or EGTRRA (Public Law 107-16). More recently, in March of this year, the economy received a fiscal boost from the Job Creation and Worker Assistance Act (P.L. 107-147), which extended benefits for unemployed workers and enacted tax incentives to spark business investment.

In addition to being more timely than in past recessions, the stimulus provided by the federal budget during 2001 and 2002 was larger. The increase in the federal deficit, for example, which reflects legislation and other factors (including the budgetary effects of the business cycle), averaged about 1 percent of GDP per year during previous downturns.[3] By contrast, the overall shift from surplus to deficit during 2001 and 2002 will probably average about 2 percent of GDP, almost half of which resulted from legislative action.

The economic impact of changes in the federal budget is uncertain. But even though observers disagree about the effectiveness of fiscal stimulus in general and of some of the recently enacted provisions in particular, most ana-

2. Statement of Alan Greenspan, Chairman, Federal Reserve Board, before the Senate Committee on Banking, Housing, and Urban Affairs, July 16, 2002.

3. For a recent description of fiscal stimulus based on specialized measures, see Congressional Budget Office, *The Standardized Budget and Other Adjusted Budget Measures* (April 2002), available at www.cbo.gov.

lysts view those fiscal developments as helping limit the recession and strengthen the recovery by affecting supply as well as demand. The supply-side effects on work and investment are generally thought to be smaller in the short run than in the long run, but the temporary nature of the recent investment incentives will add to the short-term economic boost. In the end, however, the stimulus's impact on the supply of labor and capital will largely depend on how it is financed. In general, if it is ultimately financed by reducing federal spending, supply-side effects will be enhanced; but if current tax cuts are financed by raising future taxes, the stimulus could have adverse supply-side effects.

In addition to legislative stimulus, the federal budget has provided some support for private spending both this year and last through the so-called automatic stabilizers —the automatic decline in tax liabilities and increase in transfers to individuals (mostly unemployment insurance benefits) that occur during economic downturns.[4] The recent weakness in revenues indicates that the automatic stabilizers may be playing a significant role.

Other factors in addition to legislation and the automatic stabilizers affect the size of the federal surplus or deficit and its change from one year to the next. They include the effects on revenues of the falling stock market and a decline in the share of taxable income subject to the top marginal tax rates. Also part of the picture are the temporary effects of overwithholding on tax liabilities for 2001 (and the subsequent bulge in tax refunds in the spring of 2002), as well as the provision in EGTRRA that shifted $23 billion of corporate tax payments from fiscal year 2001 to fiscal year 2002. Because some of those factors will probably have little impact on growth over the short run, the change in the total budget surplus or deficit may overstate the amount of fiscal stimulus in 2002.

State and Local Governments. States and localities provided some fiscal stimulus in 2001, particularly following September 11. But this year and next, their actions may instead be a drag on growth as deteriorating revenues force them to cut spending and raise taxes to meet balanced-budget requirements. States had some flexibility in balancing their budgets for fiscal year 2002 (which ended in June for most states) and were able to maintain spending, even as revenues weakened, by using rainy-day funds, tobacco settlements, and the like. But they also cut some spending and in certain instances passed revenue-raising measures (totaling nearly $7 billion). Now that flexibility is rapidly disappearing. Although real state and local purchases of goods and services grew by 4.6 percent in the first quarter of 2002, they declined by more than 1 percent in the second. Going forward, combinations of cuts in spending and new tax increases will further scale back what those jurisdictions contribute to short-term growth.

International Developments

The biggest recent change for the United States in the international economic environment has been the broad-based decline in the dollar, which ended its long upward climb that began in 1995 (*see Figure 2-5*). Measured by an index that weights countries' currencies according to their share in U.S. trade, the dollar exchange rate has fallen by about 8 percent since its peak in March of this year.

The dollar has retreated relative to almost all major currencies, depreciating against the euro, the British pound, the Canadian dollar, the Japanese yen, and other major Asian currencies. (The notable exceptions are the Mexican peso and the currencies of other Latin American countries.) Thus far, the dollar's turnaround has had little impact on consumer prices, trade, or interest rates. Foreign recoveries have lagged behind the U.S. eco-

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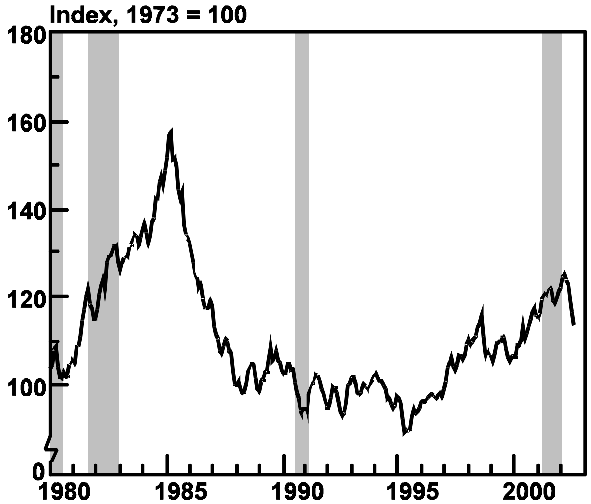
4. One way to understand how automatic stabilizers sustain consumer spending is to observe that many financial obligations of taxpayers, such as mortgage payments, do not decline when people lose their job. But people's federal tax liabilities drop (more than proportionately to their reduced income because of the progressive tax structure), and more people qualify for federal payments for unemployment insurance and other programs. During a recession consumers have more disposable income to spend, as a result of the falling tax liabilities and rising federal payments, than they would if taxes and benefits did not change. See Congressional Budget Office, *The Standardized Budget*, for additional detail.

Figure 2-5.

The Effective Exchange Rate



Sources: Congressional Budget Office; JP Morgan.

nomic upturn, so it is no surprise that the nation's current-account deficit widened during the first half of this year.[5] The trade deficit, which is the main component of the current-account deficit, also increased (*see Figure 2-6*). Reaching $390 billion, or 3.9 percent of GDP (measured on an annual basis) in the last quarter of 2000, the trade deficit ebbed to $294 billion (2.9 percent of GDP) by the third quarter of last year, as U.S. businesses slashed their inventories of imported goods during the recession. But the recovering economy lifted it in the first half of this year to an average of $340 billion. Now, once again, the trade deficit is above 3 percent of GDP, and rising.

Many analysts welcomed the dollar's drop, having long argued that it needed to adjust downward to help lower the current-account deficit and put external debt on a more sustainable path. There is a risk that the dollar's slide could accelerate, but such an event seems unlikely (*see Box 2-2*).

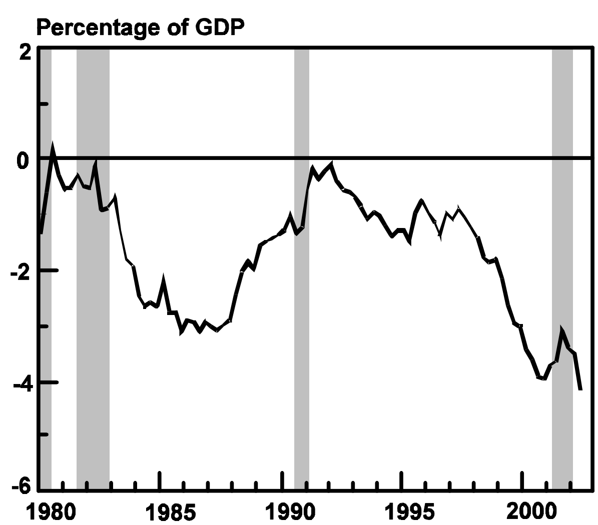
The upturn in the United States has helped foreign economies emerge from last year's slump. But so far, the recovery abroad is patchy and likely to remain modest in the near term. Much of it depends on strong U.S. demand for foreign goods and services. Yet the dollar is depreciating, which makes foreign goods more expensive here than they would be with a strong dollar. That factor, combined with low U.S. demand for all investment goods (including imported ones), suggests that the foreign economic recovery will be weak.

The economies of the United States' North American neighbors are at different stages of the business cycle. Growth in Canada has been sufficiently strong that the Bank of Canada has raised its interest-rate target three times since mid-April. In contrast, the Mexican economy was still contracting in the first quarter of 2002.

Europe's growth potential has long been constrained by demographics, the slow pace of structural reforms in its labor markets, and the inflexibility of fiscal and monetary policies. Now, the falling European equity markets and weaker-than-expected U.S. growth are likely to further dampen its already lackluster rally. In addition, the appreciation of the euro since March, while helping to avert further monetary tightening, is hurting the area's recovery by curbing growth in net exports.

Figure 2-6.

Net Exports as a Share of GDP



Sources: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis.

Note: A drop in net exports (the difference between exports and imports as measured in the national income and product accounts) indicates a rising trade deficit.

5. See Box 2-2 for a definition of the current-account balance.

Box 2-2.

The Dollar May Continue to Decline

Many analysts agree that the dollar may finally be making a long-awaited downward adjustment under the weight of the United States' large current-account deficit and net international debt and that it is likely to continue its slide in the foreseeable future.[1] The dollar has depreciated against a broad range of currencies, which suggests that the cause of its recent drop lies more with the dollar itself—or with the U.S. economy—than with particular foreign economies. If the dollar's recent retreat is a response to changes in economic fundamentals, it could be more persistent than a change based on more-ephemeral factors.

The U.S. economy's current-account deficit reflects net borrowing from overseas, and it is unclear how the dollar's decline will affect future foreign lending. If foreign investors judge that the dollar is now more favorably valued, they may be more willing to lend to the United States. But expectations of further declines might discourage prospective lenders, especially when combined with new, lower estimates of the potential return on capital invested in the United States and newly raised doubts about the transparency and accuracy of U.S. corporate finances. Some analysts argue that if foreign lenders and investors pull back, the outcome could be a sharp collapse in confidence, leading to an undesirably rapid fall in the dollar.

But the nation's economic fundamentals do not point to such a sharp decline. Inflationary pressures are low because the U.S. economy is still operating with underused capacity that forestalls unmet demand. Consequently, the dollar is not likely to decline much as a result of fears about inflation. In addition, with short-term interest rates at their lowest levels in 40 years, anxiety about even lower rates could not cause the dollar to fall very far.

Another reason that the dollar is unlikely to collapse is that the recovery in foreign economies still depends on the locomotive power of U.S. growth. The recovery in most foreign economies is still fragile. Europe's rebound is held back by a cautious economic policy and structural rigidities, whereas Japan's economy is weighed down by deflation and massive nonperforming bank loans. Among other Asian economies, recovery is not widespread; in Latin America, the crisis in Argentina is spilling over to other countries. Moreover, although the U.S. stock market has plummeted, its foreign counterparts are not much better off.

In sum, international investors do not as yet have a wide array of alternatives that are superior to U.S. assets. The dollar's downward adjustment, all things considered, is likely to be gradual rather than disruptively abrupt.

1. The current-account balance is the net revenues that arise from a country's international sales and purchases of goods and services plus net international transfers (public or private gifts or donations) and net factor income (primarily capital income from foreign property owned by residents of that country minus capital income from domestic property owned by nonresidents).

The economic comeback in Asia is not uniformly reassuring either. Rebounds in exports are lifting some Asian economies, most notably South Korea's, out of last year's slump. And thanks to its currency's fixed tie to the depreciating dollar, China's exports have received a boost, helping offset the drag of depressed consumer demand in that country. But in Japan, the absence of major policy changes means that domestic demand continues to be weighed down by the continuing banking crisis, entrenched deflation, and pervasive insecurity about the economy. The export-led rebound that was recorded in the first quarter is showing signs of fizzling as both the dollar and the U.S. recovery weaken. Meanwhile, Hong Kong is still gripped by both recession and deflation, and Taiwan is struggling toward a solid upturn.

Economic conditions are most bleak in South America. A number of countries—most notably, Argentina, Brazil, and Venezuela—are still in recession, and their currencies are under pressure. As a result, investors' perceptions of the region's riskiness have heightened. Argentina, which is well into its fourth year of recession, saw real GDP contract further in the first quarter of this year. Brazil's currency has dropped sharply, and its bond yields have soared. Uruguay's newly floated currency has also plunged while its banking system now verges on collapse. It remains unclear whether the International Monetary Fund's recent approval of a $30 billion loan to Brazil can help stabilize the region's economic conditions.

Labor Markets

One strong indication that the U.S. recession is over is that the labor market has steadied in recent months after the loss of nearly 1.8 million jobs over the year that began with the downturn in March 2001. Unemployment, which tends to lag behind output during a recovery, is about 2 percentage points above its recent lows in 2000. Because output bounced back somewhat faster than expected through the first half of 2002, the unemployment rate has risen by less than CBO forecast last March. However, the rate is still expected to peak at a low level compared with its highs in the last three recessions. Overall declines in payrolls during the slowdown were on a par with those in other mild downturns, and so far, increases in payrolls have also been comparable. Nominal wages and salaries grew moderately in the first half of 2002 after slumping in 2001. Real labor income also turned up in 2002.

Recent employment and unemployment data suggest that although the economy is not falling back into recession, the recovery remains tentative. By midyear, job losses had slowed markedly; however, demand for labor appears to be in a holding pattern. Average weekly hours and overtime hours rose during June, particularly in manufacturing, but fell back in July. On balance, payrolls have so far recorded only small increases. Hiring in the temporary help sector, sometimes seen as a precursor of rising permanent employment, has edged upward, but surveys of businesses' intentions reinforce the impression that employers are still reluctant to hire.

The pattern of employment across industries is mixed and reflects the composition of output growth. The sharp decline in employment in manufacturing—much of it linked to the fall in investment—appears to be almost arrested. Despite an upturn in spending, travel-related employment has not begun to recover from the effects of September 11's terrorist attacks. Employment in construction has waned by much less than in almost all past recessions, and steep drops seem unlikely over the rest of this year.

Firms continue to cut costs in an attempt to rebuild profits, and that strategy could have led to the unusually strong growth of labor productivity—averaging 8 percent, measured annually—that was recorded in the fourth quarter of 2001 and the first quarter of this year. One interpretation of the recent trends in productivity and payrolls is that the winter's surge in productivity allowed firms to increase output without having to hire more workers. But the winter's rapid pace could not be sustained: productivity grew at an annual rate of 1.1 percent in the second quarter, confirming the view that firms will have to employ more labor to meet the rise in demand forecast through 2003.

Since March, nominal wages and salaries have grown moderately. Year-over-year growth, as measured by the employment cost index, fell below 4 percent in the first quarter of 2002 but then regained its 4 percent pace in

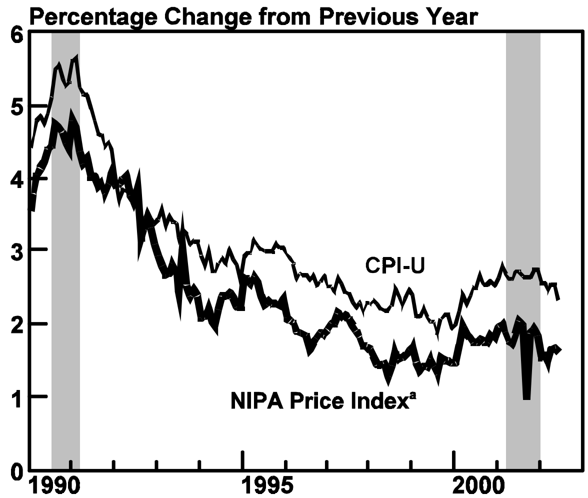
Figure 2-7.

The Employment Cost Index for Private Industry Workers

Sources: Congressional Budget Office; Department of Labor, Bureau of Labor Statistics.

Figure 2-8.

Measures of Core Consumer Price Inflation



Sources: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis; Department of Labor, Bureau of Labor Statistics.

Notes: Core measures exclude food and energy prices.

CPI-U is the consumer price index for all urban consumers.

a. The personal consumption price index from the national income and product accounts.

the second (*see Figure 2-7*). The rate's climb back to that level reflects faster growth in wages and salaries and in the cost of health benefits. Total compensation in the nonfarm business sector of the economy showed no sign of acceleration, rising at an annual rate of 3.6 percent in both the first and second quarters of 2002.

Inflation

Inflation appears to be contained. Although energy prices pushed up the overall rate of inflation in the first half of 2002, the core rate as measured by the consumer price index for all urban consumers (excluding food and energy prices) has generally ranged between 2 percent and 3 percent since 1994 and has remained within that band so far this year (*see Figure 2-8*). Another measure of core consumer price inflation, the price index for personal consumption expenditures excluding those for food and energy, was only 1.6 percent for the year ending in June, less than the core CPI-U rate of 2.3 percent.[6]

Accelerating prices for medical care and rents prevented the core rate from declining, as it usually does in recessions. Medical care inflation as measured by the CPI-U has risen steadily over the past four years and is now about 4.5 percent. The growth of rents has also quickened, and, because people spend so much of their income on housing, is a major reason that the core rate did not decline last year (and actually increased slightly relative to the rate in 2000).

The currently low rate of inflation reflects the facts that the economy has no shortage of capacity to meet demand and that the mild recovery promises to exhaust that capacity only slowly. Furthermore, the strong recent gains in productivity and slower growth of hourly labor costs have held down the rise of unit labor costs over the past four quarters. The drop in the dollar since March will lift the price of imports but probably not by much because of the excess capacity abroad and the desire of importers to maintain their market shares in the United States.

Corporations

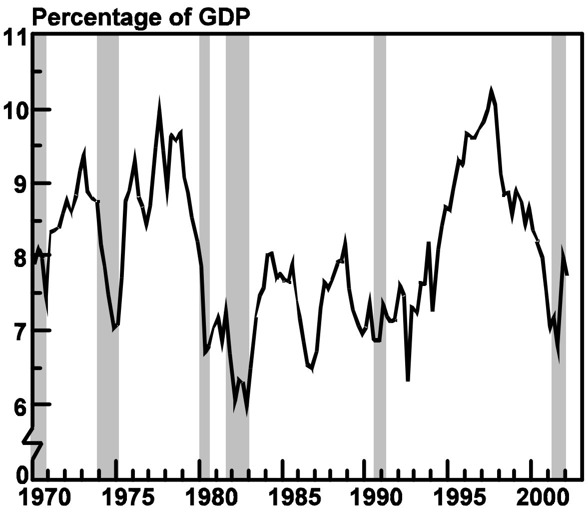
The corporate sector is beginning a slow recovery. The near-term forecast for business investment, however, is clouded by doubts about the accuracy of firms' past accounting practices and the outlook for profits and stock prices. The higher cost of raising investment capital in the stock and debt markets and restrained growth in final demand, both of which stem from the plunge in the value of stocks, will limit firms' investment plans.

Corporate Profits and Business Confidence. Despite the high-profile stories of corporate scandals, the overall health of the business sector has continued to improve since March. Less than a year ago, corporate finances looked bleak. The share of GDP claimed by profits had been contracting before the recession from its largest point in mid-1997, but the recession squeezed it further.

6. The rate based on personal consumption expenditures is more comprehensive than the rate based on the CPI-U.

Figure 2-9.

Economic Profits



Sources: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis.

Note: Economic profits are corporate profits from current production—that is, adjusted for changes in the value of inventories and for capital depreciation.

That drop sent the GDP share of economic profits (profits from current production, adjusted for changes in the value of inventories and for depreciation of capital) below its levels in the 1980 and 1990 recessions. Now, economic profits, which reflect corporations' underlying economic profitability, have risen from their recent lows (*see Figure 2-9*).

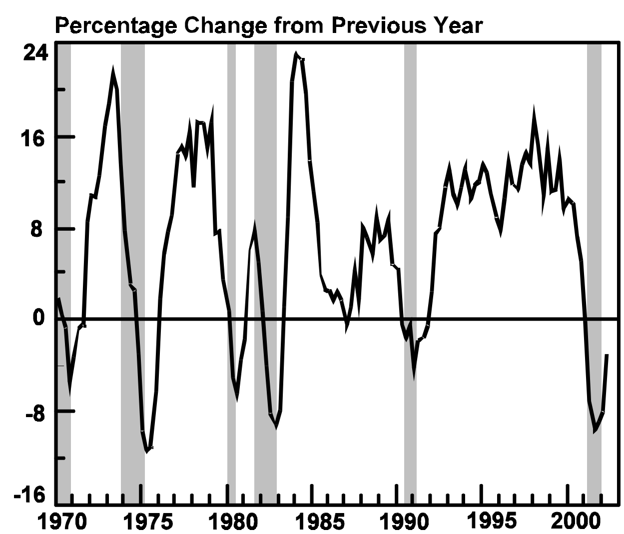
The confidence of businesses and investors remains a major factor in the prospects for corporate capital spending, and a less confident outlook could lead to actual outcomes that are weaker than those CBO has forecast—in other words, pose a downside risk to the forecast. Some surveys of business executives this year reportedly found corporate leaders more pessimistic than business economists about the economy's future. And fears about the integrity of corporate reporting, even if exaggerated or misplaced, together with volatility in the financial markets, may result in more businesses postponing decisions on capital expenditures.

Business Fixed Investment. Business investment has probably started to recover, but growth is still significantly below the extraordinarily high rates seen in the late 1990s (*see Figure 2-10*). Real spending on equipment and software stabilized around the first of the year and then turned up slightly in the second quarter. Although most analysts anticipate a continuing recovery, investment spending could yet stall, or even drop, in the face of weak demand; a higher cost of capital; and the risk of further negative shocks, such as oil-price hikes or terrorist acts.

Some of the determinants of businesses' capital spending are improving, despite the persistent wariness toward investment that many firms have shown. Historically, the primary driver of business fixed investment has been an increased demand for goods and services. On that front, domestic demand is likely to continue to recover, even though the pace of consumption may slacken in response to the drop in stock prices. Moreover, real exports have grown rapidly this year. Also pointing to improved growth of business spending are estimates suggesting that much or most of firms' excess capacity has now been worked off.

Figure 2-10.

Real Spending on Business Equipment and Software



Sources: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis.

Changes in the tax code have also been facilitating a recovery of capital spending. The Job Creation and Worker Assistance Act of 2002 provides a boost by allowing firms, until September 2004, to reduce their taxable income by taking an additional first-year depreciation deduction of 30 percent of their equipment investments.

Nevertheless, the recovery of corporate capital spending is tentative. Orders are still running below shipments, which may mean that shipments will decline further. If consumer demand drops in the wake of reduced wealth, businesses may determine that the growth of demand they can expect does not warrant new capital expenditures. That possibility is a major downside risk to CBO's forecast. And even if demand holds up, the pickup in investment spending could dwindle if businesses continued to act cautiously.

Developments in financial markets have, on balance, worked against the recovery of business investment. In particular, declines in stock prices have raised the cost of capital and may encourage firms to give profits back to shareholders as dividends (or share repurchases) rather than retain their earnings and use them to buy plant and equipment. However, companies with strong business plans and good credit ratings still have access to funds from the debt markets. And problems that weak companies with poor prospects may face in obtaining credit need not be symptomatic of a general credit crunch.

In the high-technology sector, output in some industries has rebounded along with the outlook for capital spending. Real spending on computers has climbed smartly, as has the production of semiconductors. By contrast, the communications sector is still mired in difficulties stemming from excess capacity (*see Box 2-3*). When and by how much that sector might recover are still uncertain.

Investment in nonresidential construction is still weak, its usual condition early in an economic recovery (*see Figure 2-11*). Although the building of hospitals is an exception, other nonresidential construction continued to fall through the first half of 2002; given the downward momentum, overall spending on business structures may continue to drop for much of 2002. Such investment is expected to rebound slowly but only after vacancy rates fall. As yet, commercial vacancy rates are still rising.

Box 2-3.

Continuing Problems for Telecommunications Firms

An upturn is not yet in sight for the communications sector. The origins of its problems probably lie in the failed expectations of many businesses for extraordinarily rapid growth in the demand for broadband internet and wireless services, which many telecommunications firms had counted on to bolster their bottom lines. In addition, investors may have failed to recognize that the high profits (or high expected profits) of the first firms to enter new markets would soon be eroded by a rash of competitors.

Against that backdrop, investment in telecommunications may record another year of double-digit decline in 2002. Excess capacity in wired networks and delays in plans to expand wireless networks continue to depress the market for communications equipment. A substantial restructuring of those industries is under way as companies reduce their workforces; cut back on new investment; and, in some cases, go out of business. High-profile bankruptcies do nothing to remove excess capacity in the near term; as a result, an upturn in investment is some distance away.

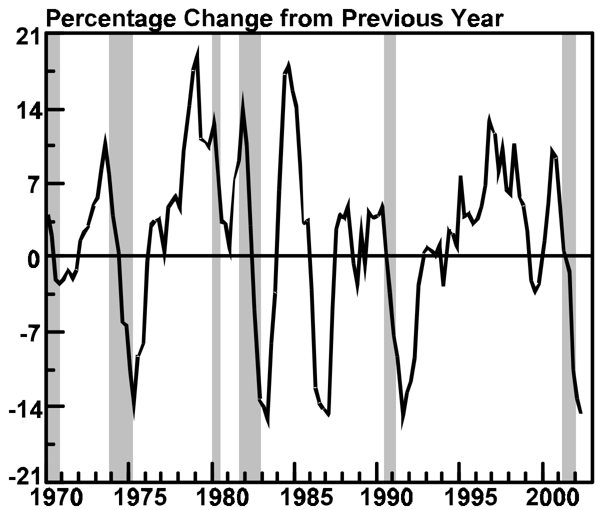
Inventories. The downward swing in inventories that subtracted more than 1 percentage point from the growth of real GDP during 2001 probably ended in mid-2002. Inventories-to-sales ratios have now fallen sufficiently to suggest that firms' currently modest return to inventory building should prove fairly robust, as long as sales continue to grow.

Households

Underpinning private spending to a large degree this year have been expenditures on consumer goods and services and on housing. Factors in such spending include strong growth in disposable personal income, low mortgage and consumer interest rates, and consumer

Figure 2-11.

Real Nonresidential Construction



Sources: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis.

finances that apart from stock market investments have been relatively healthy. But the continuing drop in stock prices since the spring has hurt household wealth and raises questions about the extent of consumer spending over the next few quarters.

Estimates of the growth of personal income between 1998 and 2001 are lower now than they were in March, following BEA's revisions to the national income and product accounts in July. CBO has incorporated those revisions in its current forecast of the economy (*see Box 2-4*).

Consumer Spending. Real consumer spending grew at an average annual rate of 2.5 percent in the first half of this year, a pace slightly slower than its growth for all of 2001. Holding down the rate was a drop in purchases of motor vehicles and parts. Although such spending remained high through the second quarter, it was lower than the very high level reached in the fourth quarter of 2001, when domestic manufacturers' sales climbed in response to the extraordinary sales incentives they were offering.

A solid upswing in disposable personal income supported consumer spending in the first half of this year. Real personal income grew at an average annual rate of only 3.2 percent in the first half, but because of the cut in federal taxes that took effect this year, real disposable personal income grew at an average annual rate of 9.1 percent.[7] Wages and salaries and interest income rose modestly; however, the categories of other labor income, rental income of persons, and nonfarm proprietors' income all spurted ahead at healthy rates. Transfer payments to individuals also climbed as a result of the extension of unemployment benefits, changes in the earned income tax credit, and modest cost-of-living adjustments.

Additional bolstering of consumer spending this year comes from the continued low interest rates on consumer loans. Commercial bank rates on 48-month loans for new cars and on credit cards have been below their levels in the fourth quarter of 2001; the average rate on new-car loans from the domestic auto finance companies has remained below its average for the first three quarters of that year. (That rate has been higher than it was during the fourth quarter, though, when automakers were offering low-interest financing on most of their models.)

Consumer spending has also been helped this year by homeowners refinancing their mortgages and tapping some of their equity. Refinancing picked up sharply this summer. In late July, the Mortgage Bankers Association's index of applications to refinance home mortgages was almost as high as it was at its peak level in 2001. Homeowners who have refinanced have cashed out some of their new equity to spend and to repay other debts. In the second quarter of 2002, 67 percent of Freddie Mac-owned loans that were refinanced resulted in new mortgages at least 5 percent larger than the original amount borrowed. By comparison, in the first quarter of 2002, only 60 percent of new loans were that much bigger than the loans they replaced; in the second half of 2001, only 54 percent were.

Refinancing has been encouraged by low mortgage interest rates and appreciating house prices. The rate on conventional 30-year fixed-rate mortgage loans dropped to

7. The tax cut resulted from the provisions of the Economic Growth and Tax Relief Reconciliation Act of 2001.

Box 2-4.

The July 2002 Revisions to the National Income and Product Accounts

Every July, the Department of Commerce's Bureau of Economic Analysis (BEA) revises the national income and product accounts (NIPAs). The revisions cover the previous three years and reflect new sources of data, alterations in previously published data on which the NIPAs are based, and methodological changes. For example, the NIPAs now incorporate new tabulations by the Bureau of Labor Statistics for 2001 of the wages and salaries of employees covered by state unemployment insurance; new tabulations by the Internal Revenue Service for 2000 of corporate tax-return data; a new annual survey of manufacturing data for 2000; and revised data from the Census Bureau for 2001 on the value of construction. Methodological changes this year were relatively minor and limited to a few price series, contributing little to the overall revisions.[1]

In general, the revisions indicate a more sustained and deeper decline in output during 2001 than was previously estimated, with slower growth in investment, consumption, and productivity. BEA revised wages and salaries downward by a huge amount for 2001, bringing the NIPAs more in line with the sharp drop in personal income tax receipts for that year. In contrast, it revised personal interest income upward. Profits following the revisions are now much lower for 2000 and slightly lower for 2001 than had previously been thought.

Overall, the revised data show that the rate of growth of real (inflation-adjusted) output fell farther during the 2001 recession than forecasters had previously thought, although even with the revisions, the loss in output was relatively mild. Between the fourth quarter of 2000 and the third quarter of 2001, real gross domestic product (GDP) dropped by 0.8 percent after the revisions, compared with an increase of 0.1 percent in the previously published data. (Unless otherwise noted, growth is expressed as an annual rate.) GDP growth was negative in the first three quarters of 2001 rather than in just the third quarter; weaker investment was the primary reason. BEA also revised the growth of private domestic investment, changing a drop of 11.7 percent to one of 14.4 percent. Measured from real GDP's peak during the business cycle to its trough, output dropped by 0.6 percent (not annualized)—a small reduction compared with the average peak-to-trough tumble of 2.3 percent for the seven previous recessions.

Changes in the income categories, particularly those for wages and salaries and profits before taxes, bring the NIPA data more in line with tax collections for 2001 and early 2002. For 2001, BEA lowered its figures for wages and salaries by $147 billion, to $4,951 billion, and for profits by $28 billion, to $670 billion.[2] Downward revisions in those categories were not unexpected because tax collections based on personal income and profits for 2001 were both so weak.

In contrast to the downward change in wages and salaries, the direction of the revision in the personal saving rate was upward for both 2000 and 2001. The change resulted from an upward revision in personal interest income, which offset the change in wages, and a downward revision to consumption for both years. Thus, the personal saving rate for all of 2000 was revised upward by about 2 percentage points, to 2.8 percent; for all of 2001, it was revised upward by almost 0.7 percentage points, to 2.3 percent. Those changes imply that the drop in stock market wealth since 2000 had a slightly smaller effect on consumption and saving rates between 2000 and 2001 than analysts had previously thought.

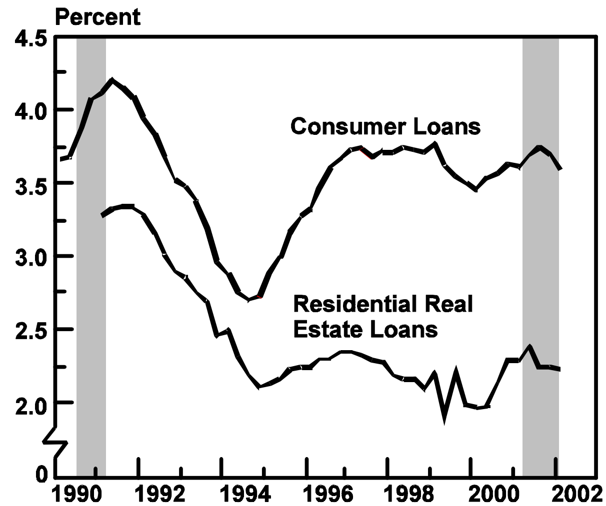
The revision to real GDP growth translates into a slower rate of labor productivity growth during recent history, taking some of the luster off of the New Economy but not reversing the favorable trends of the last several years. For example, growth in labor productivity was revised downward by a substantial amount in 2001 (0.8 percentage points, to 1.1 percent). However, even after the revision, labor productivity growth was still stronger during the 2001 recession than it was during the typical postwar recession. Moreover, even though average growth in labor productivity during the 1995-2001 period was marked down to 2.3 percent (from 2.5 percent) as a result of the three years of revised data, that rate is still stronger than the 1.4 percent average rate of growth during the 1973-1995 period.

1. Details of the revisions can be found at www.bea.gov, in the August *Survey of Current Business* under "Publications."

2. The estimate of profits for 2001 is still rough and subject to a further, possibly large revision when BEA does a comprehensive revision in 2003.

Figure 2-12.

Delinquency Rates



Sources: Congressional Budget Office; Federal Reserve Board; American Bankers Association.

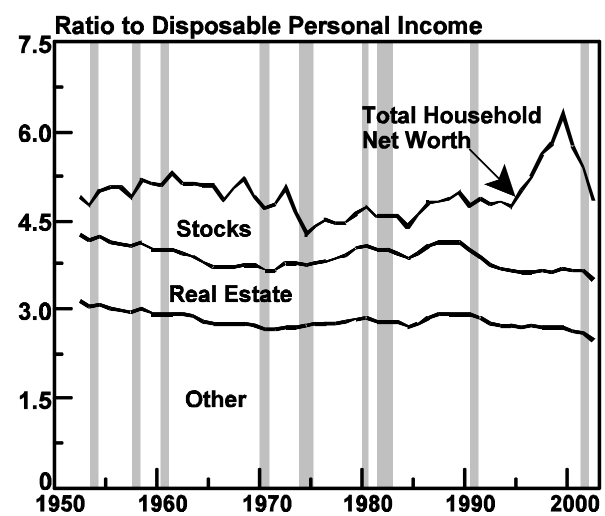
6.34 percent in the week ending July 26—the lowest it has been in the roughly 30 years for which records of comparable rates have been kept. In tandem with falling mortgage rates, house prices have been rising. Year-over-year increases in the prices of both existing and new homes have been running at about 6 percent during the first half of 2002, which is notably faster than the 2 percent pace they maintained in the first half of the 1990s. (Growth accelerated to almost 9 percent at the peak of the business cycle in March.)[8]

Another reason that consumers have maintained their spending is that their finances were in relatively good shape coming out of the recession. The delinquency rate on consumer loans from commercial banks peaked at a level that was considerably lower than its high point during the 1990 recession. Delinquency rates on home mortgages from commercial banks also rose only a little during this recession and remain far below their levels early in the recovery from the 1990 downturn (*see Figure 2-12*). Moreover, the burden of debt service changed very little over the year ending in the first quarter of this year (reflecting the latest data available) because of the slower growth of consumer credit and the drop in consumer loan and mortgage rates.

The wealth of households is a different matter, however. From the end of March of this year to the end of July, the Wilshire 5000 stock price index, which measures the capital invested in the stock market, lost about $2.2 trillion. Appreciating home prices have offset only a little of that drop; as a consequence, the ratio of household net wealth to disposable personal income has continued to fall and may have slipped by now to where it was in 1995 (*see Figure 2-13*). With the plunge in their wealth this year, consumers have cut their spending and increased their saving. Indeed, the personal saving rate has averaged 3.8 percent so far this year, up from 2.3 percent for all of 2001.

Figure 2-13.

Household Net Worth



Sources: Congressional Budget Office; Federal Reserve Board.

Notes: Data are end-of-year values. Values for 2002 are estimates for the middle of the third quarter.

8. Some analysts question whether the rise in home values is sustainable—an important issue given the support that housing wealth seems to have provided to overall household spending. However, officials at the Federal Reserve as well as other observers largely discount fears of a nationwide bubble in house prices. See the statement of Alan Greenspan, Chairman, Federal Reserve Board, before the Congress's Joint Economic Committee, April 17, 2002.

Housing Investment. Residential investment has been strong this year because of the continued low interest rates on mortgages. Residential building rose at an annual rate of 9.5 percent in the first half of 2002; that compares with growth (measured fourth quarter to fourth quarter) of 1.0 percent in 2001 and -1.2 percent in 2000. The relatively modest cost of mortgage money has made purchases of real estate more attractive as an investment, and with stock prices stalling, households may have shifted their portfolios to invest more in housing. With prices still rising, there appears to be little oversupply.

Table 2-2.

CBO's Forecast for 2002 and 2003

	Actual 2001	Forecast 2002	Forecast 2003
Fourth Quarter to Fourth Quarter (Percentage change)			
Nominal GDP	2.0	4.2	5.3
Real GDP	0.1	2.9	3.4
GDP Price Index	1.9	1.3	1.8
Consumer Price Index[a]			
Overall	1.9	2.4	2.4
Excluding food and energy	2.7	2.3	2.4
Calendar Year Average			
Real GDP (Percentage change)	0.3	2.3	3.0
Unemployment Rate (Percent)	4.8	5.9	5.9
Three-Month Treasury Bill Rate (Percent)	3.4	1.7	2.9
Ten-Year Treasury Note Rate (Percent)	5.0	4.9	5.4

Sources: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis; Department of Labor, Bureau of Labor Statistics; Federal Reserve Board.

a. The consumer price index for all urban consumers.

CBO's Economic Forecast for 2002 and 2003

Growth of real GDP will average 2.3 percent in calendar year 2002, CBO estimates, and 3.0 percent in 2003 (*see Table 2-2*). That forecast of continuing mild recovery reflects CBO's view that the recession has substantially corrected firms' excess capacity and checked the fall in profits, and that further economic adjustments are under way. Most notably, the fall in stock prices will reduce spending relative to CBO's previous forecast in March. As recovery turns into expansion, growth will continue to be relatively modest. In addition, however, the near-term economic outlook will be dominated by uncertainties, exceptional in scope and size, that pose challenges to consumers, businesses, investors, and economic forecasters alike.

Real GDP and Employment

CBO expects that a moderate but steady rise in consumer spending will continue to provide the foundations for the economy's growth. Augmenting it will be a rapid rise in the federal government's spending in 2002 and a gradual recovery of corporate spending by the end of the year that will continue through 2003. The growth of demand on average will be below the growth of potential output in 2002 and above it in 2003.[9]

CBO's forecast assumes that the slow but steady increase in payrolls that is now becoming apparent will continue. The pace at which employment grows will probably not be sufficient to reduce unemployment rates during 2002, but it should prevent further significant hikes. As a result, CBO forecasts that unemployment will remain close to 6 percent though the end of 2002 and average 5.9 percent in 2003.

The forecast of a moderate rise in consumer spending reflects the fact that monetary and fiscal stimulus helped maintain consumer spending during the recession. Thus, households do not feel compelled to make up for lean times with a rapid burst of spending. On the contrary, they are likely to want to increase their saving to compensate for the wealth they have lost.

In the business sector, current assessments of the profitability of new investments suggest that spending might be further constrained. Such investments will contribute less to spending growth in 2002 and 2003 than they did in the period after 1995.

CBO does not expect the fall in stock prices to derail the nation's economic recovery. Nevertheless, mainstream estimates from econometric research suggest that if the

9. Potential output is the highest estimated level of real GDP that could persist for a substantial period without boosting inflation.

nosedive in stock market wealth since CBO's March forecast is not quickly reversed, it could reduce consumer spending by between $50 billion and $100 billion through the end of 2003. Econometric models also suggest that a slowdown of that magnitude would combine with the effect of higher costs for equity financing to constrain business investment by some $15 billion to $30 billion through 2003.

CBO's forecast also assumes that foreign economies will continue to recover and the weakening of the dollar is likely to prompt some switching of demand toward U.S. output and away from that of foreign producers. With a slow recovery abroad, the U.S. trade deficit may climb significantly in real terms in 2003 before it responds to the weaker dollar and stabilizes.

Inflation and Interest Rates

Over the next two years, CBO forecasts, the core rate of CPI-U inflation will remain near its current 2.5 percent rate, and the growth of the overall CPI-U will approach 2.5 percent as well, under the assumption that energy and food price inflation will quickly gravitate toward the core rate. Higher prices for imports will be offset by a deceleration in rents and by inflation's tendency to fall early in recoveries—that is, in periods of excess supply.

CBO's forecast incorporates the assumption that short-term interest rates will probably remain at their currently low levels through the end of 2002 but that with the strengthening recovery, the Federal Reserve will raise its target for the federal funds interest rate appreciably during 2003. The interest rate on three-month Treasury bills, CBO estimates, will rise from 1.7 percent in 2002 to 2.9 percent in 2003, and the interest rate on 10-year notes will climb from 4.9 percent in 2002 to 5.4 percent in 2003.

Uncertainty in the Near Term

Forecasts are always uncertain, and prudent users of them will consider the likelihood that they could be wrong. CBO's forecasts, whose reliability CBO regularly assesses, seem about as accurate as those of other government agencies and private forecasters; yet like all forecasts, CBO's can anticipate only predictable events.[10] Nevertheless, it is possible to identify several factors that pose a special risk to the forecast's accuracy.

A particular source of uncertainty comes from the large fall in stock prices, unusual in a recovery, which may lead households and firms to act in unexpected ways. Even though CBO incorporated estimates of how lower stock prices would affect spending when it prepared its forecast, the substantial questions about the timing and magnitude of those effects makes CBO's economic forecast more than usually uncertain. CBO makes no attempt to predict future movements in the stock market; clearly, though, the market is likely to remain volatile and could either recover strongly or deteriorate further, developments that would affect individuals' financial situations and businesses' cost of capital.

Even aside from financial market developments, changes in the confidence of consumers, businesses, and investors could affect the near-term outlook. Businesses make decisions about production and investment on the basis of their confidence in future business conditions; similarly, consumers' decisions are based on their confidence in the security of their employment and of their financial investments. Currently, consumer confidence seems fragile. For businesses, the slowing of investment before and during the recession has eliminated much or most of the excess capacity, but it remains unclear when businesses will feel that they can begin to build capacity again. Moreover, beyond its direct effect on investment, business confidence is likely to play an important role in the recovery of employment and, hence, household income. For example, cautious firms might be unwilling to hire new employees, which would lead to weak employment growth. If that growth was slower than the growth in the labor force, the gap between the labor force and the level of employment could widen, which would raise the unemployment rate. Job losses, in turn, could affect household spending.

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10. See *CBO's Economic Forecasting Record* (February 2002), available at www.cbo.gov.

The United States' economic interactions with the rest of the world present another source of uncertainty. For example, stronger-than-expected growth abroad along with a weaker-than-expected dollar would boost net exports, and hence real GDP, relative to CBO's estimates. Some analysts have suggested a much less optimistic scenario, in which foreigners' loss of confidence in dollar-denominated securities provokes a rapid collapse of the dollar—which could severely disrupt domestic financial markets and spark a sharp upturn in inflation. In CBO's estimation, that scenario has a low probability of occurring, although CBO does expect the dollar to continue to fall.

Fluctuations in inflation are likely, especially in energy and food prices, but there appears to be little reason to fear any serious acceleration of inflation, despite the current ease of monetary policy. As noted earlier, overall financial conditions are not favorable to rising inflation. Indeed, the likelihood of an uptick in inflation seems no greater than that of a decline. Analysts are even considering the possibility of general deflation—lowered prices are already a reality for many producers of goods. But general deflation is not CBO's forecast and seems a small risk at present.

Finally, as a background to all these uncertainties is the risk of further terrorist acts and even of war. CBO makes no attempt to assess those risks, but they presumably play a role in determining the confidence of consumers and businesses. Some risks that earlier seemed important—such as the possibility that a lack of insurance against terrorism could crimp businesses' investments in structures—now apparently have proven smaller than anticipated. But others, such as the possibility of sharp increases in oil prices in the case of a war in the Gulf, remain.

Comparison of Two-Year Forecasts

CBO's current two-year forecasts are very similar to the current *Blue Chip* consensus forecasts but show much lower growth than the Administration does in its *Mid-Session Review* (*see Table 2-3*).[11] Comparing CBO's and the Administration's forecasts is misleading, however, because the Administration's estimates, although published in July, reflect only the information that was available before June. The precipitous drop in the stock mar-

Table 2-3.

Comparison of Forecasts for Calendar Years 2002 and 2003

	Actual	Forecast	
	2001	2002	2003
Nominal GDP (Percentage change)			
CBO	2.6	3.4	4.6
Blue Chip consensus	2.6	3.6	4.9
Administration	3.4	4.0	5.5
Real GDP (Percentage change)			
CBO	0.3	2.3	3.0
Blue Chip consensus	0.3	2.3	3.2
Administration	1.2	2.6	3.6
GDP Price Index (Percentage change)			
CBO	2.4	1.1	1.6
Blue Chip consensus	2.4	1.2	1.7
Administration	2.2	1.3	1.9
Consumer Price Index[a] (Percentage change)			
CBO	2.8	1.7	2.4
Blue Chip consensus	2.8	1.6	2.4
Administration	2.8	1.7	2.5
Unemployment Rate (Percent)			
CBO	4.8	5.9	5.9
Blue Chip consensus	4.8	5.9	5.7
Administration	4.8	5.8	5.6
Three-Month Treasury Bill Rate (Percent)			
CBO	3.4	1.7	2.9
Blue Chip consensus	3.4	1.7	2.5
Administration	3.4	2.0	3.5
Ten-Year Treasury Note Rate (Percent)			
CBO	5.0	4.9	5.4
Blue Chip consensus	5.0	4.9	5.3
Administration	5.0	5.2	5.2

Sources: Congressional Budget Office; Aspen Publishers, Inc., *Blue Chip Economic Indicators* (August 10, 2002).

Notes: The *Blue Chip* consensus is the average of the nearly 50 individual *Blue Chip* forecasts.

The Administration's forecasts were completed before the revisions to the historical national income and product accounts published in July 2002.

a. The consumer price index for all urban consumers.

11. The *Blue Chip* consensus averages the estimates of nearly 50 private-sector forecasters.

ket and BEA's revision of the past three years of GDP data occurred later, causing many forecasters to lower their near-term projections of economic growth.

The Outlook Beyond 2003

CBO expects that real GDP growth will average 3.2 percent for the period 2004 through 2012, a pace just slightly higher than the average rate of growth of potential GDP—3.1 percent—during the same period. Real GDP declined slightly during the recession, and the forecast of moderate growth in 2002 and 2003 leaves it slightly lower than potential GDP for 2003. From that point on, real GDP must grow slightly faster than potential over the medium term to bring actual and potential output back to their historical relationship. The current projection of potential GDP is almost identical to the one in CBO's March 2002 forecast.

CBO's projections of inflation, unemployment, and interest rates are also virtually unchanged since last March. Inflation in the CPI-U averages 2.5 percent during the 2004-2012 period, and the rate of unemployment is flat, at 5.2 percent. The rate on three-month Treasury bills averages 4.9 percent during the 2004-2012 period, and the rate on 10-year Treasury notes holds steady at 5.8 percent.

CBO does not explicitly incorporate in its projections specific cyclical recessions and recoveries beyond the next two years. Instead, to reflect the likelihood that at least one cyclical episode will occur in any 10-year interval, the effects of a typical cycle are averaged in. The medium-term projections extend historical trends in such underlying factors as the growth of the labor force, the growth of productivity, the rate of national saving, and income shares. CBO's projections of real GDP, inflation, real interest rates, and tax revenues depend critically on those underlying trends.

CBO's Projection of Potential Output

CBO projects that potential output will grow at an average rate of 3.0 percent during the period 2002 through 2012—almost exactly the same rate projected in March (*see Table 2-4*). The growth of the potential labor force is expected to average 1.0 percent, and the rise in potential labor force productivity averages 2.0 percent.

Underlying those estimates is potential output growth in the nonfarm business sector, which is projected to average 3.4 percent. That growth, in turn, derives from assumptions about hours, capital, and productivity for the sector: specifically, growth in potential hours worked, 1.2 percent; capital accumulation, 4.2 percent; and potential total factor productivity, 1.2 percent.[12] In addition, potential labor productivity rises at a rate of 2.1 percent in CBO's projection. Each of those assumptions is almost identical to the corresponding estimate in the March forecast.

CBO's projection of 3.0 percent growth in potential GDP is almost identical to that measure's average annual growth since 1973, although slightly slower than the rate of 3.4 percent estimated for the late 1990s. The difference can be attributed to two factors. First, the rise in hours worked is likely to slow slightly relative to the pace of the late 1990s because growth of the working-age population is expected to dip during the next decade and immigration is likely to tail off from the very rapid pace of the 1990s. Second, the rate of capital accumulation that CBO used for its projections, although quite healthy, is not as high as the blistering level of the late 1990s. Growth of capital services (averaging 4.2 percent annually during the 2002-2012 period) is down from 5.3 percent during the late 1990s.

In the current projection, potential TFP (total factor productivity) rises at a rate of 1.3 percent annually on average from 2004 to 2012, which is identical to its growth rate in CBO's March projection. The underlying trend in TFP growth has been very stable both during the past several years and in recent estimates; the current trend growth rate of 1.1 percent is virtually unchanged

12. Total factor productivity is the average real output per unit of combined labor and capital inputs. The growth of total factor productivity is defined as the growth of real output that is not explained by the growth of labor and capital. Labor productivity and total factor productivity differ in that increases in capital per worker raise labor productivity but not total factor productivity.

Table 2-4.

Key Assumptions in CBO's Projection of Potential GDP

(By calendar year, in percent)

	Average Annual Growth 1951-1973	1974-1981	1982-1990	1991-1995	1996-2001	Overall Average Annual Growth, 1951-2001	Projected Average Annual Growth, 2002-2012
Overall Economy							
Potential GDP	3.9	3.3	3.0	2.6	3.3	3.4	3.0
Potential Labor Force	1.6	2.5	1.6	1.1	1.1	1.6	1.0
Potential Labor Force Productivity[a]	2.2	0.8	1.4	1.4	2.1	1.7	2.0
Nonfarm Business Sector							
Potential Output	4.0	3.6	3.1	2.9	3.8	3.7	3.4
Potential Hours Worked	1.3	2.2	1.5	1.5	1.5	1.5	1.2
Capital Input	3.7	4.4	3.6	2.5	5.2	3.9	4.2
Potential Total Factor Productivity	2.0	0.8	1.0	1.1	1.3	1.4	1.2
Potential TFP Excluding Adjustments	2.0	0.7	1.0	1.0	1.0	1.4	1.0
TFP Adjustments	0	0	0	0	0.3	0	0.2
Computer quality	0	0	0	0	0.1	0	0.1
Price measurement	0	0	0	0	0.1	0	0.2
Additional spending on security	0	0	0	0	*	0	-0.1
Contributions to Growth of Potential Output (Percentage points)							
Potential hours worked	0.9	1.5	1.1	1.0	1.0	1.1	0.9
Capital input	1.1	1.3	1.1	0.8	1.6	1.2	1.3
Potential TFP	2.0	0.8	1.0	1.1	1.3	1.4	1.2
Total Contributions	4.0	3.6	3.1	2.9	3.9	3.7	3.4
Memorandum:							
Potential Labor Productivity[b]	2.7	1.4	1.6	1.4	2.3	2.1	2.1

Source: Congressional Budget Office.

Notes: CBO assumes that the growth rate of potential total factor productivity (TFP) changed after the business-cycle peaks of 1973, 1981, and 1990 and again after 1995.

* = less than 0.05 percent.

a. The ratio of potential GDP to the potential labor force.

b. Estimated trend in the ratio of output to hours worked in the nonfarm business sector.

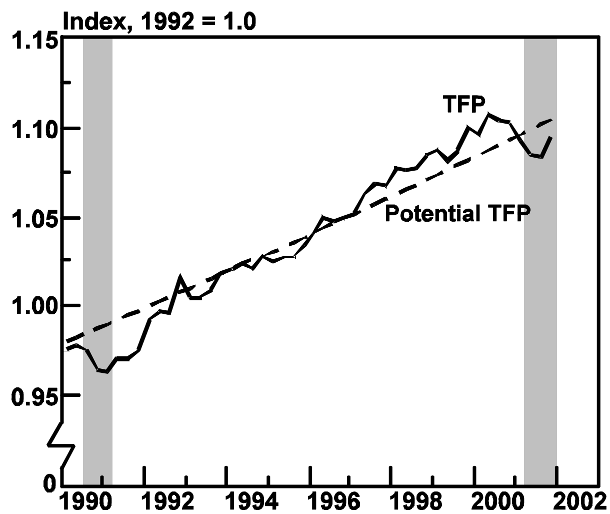
since March. (CBO estimates the trend using historical data that have been adjusted to eliminate the effects of changes in the formulas for measuring inflation in the NIPAs and to remove the impact of technological progress in computer manufacturing from overall TFP.) The 2001 recession opened only a small gap between TFP and potential TFP during 2001—even smaller than that in the mild 1990 recession (*see Figure 2-14*). Moreover, the recent strong growth in labor productivity suggests that the gap was erased during the first half of 2002.

Unemployment, Inflation, and Interest Rates

Inflation as measured by the CPI-U averages 2.5 percent in CBO's medium-term projection, and the GDP price

Figure 2-14.

Total Factor Productivity and Potential TFP



Sources: Congressional Budget Office.

Note: The data are adjusted to exclude the effects of methodological changes in the measurement of prices and the contribution to overall TFP growth of technological change in the production of computers.

index grows at an average annual rate of 2.1 percent between 2004 and 2012, or about one-tenth of a percentage point faster than CBO projected in March. That change results from CBO's expectations of faster growth in import prices and slightly higher domestic inflation. In general, CBO assumes that the inflation rate in the medium term is determined by monetary policy.

The unemployment rate will average nearly 5.2 percent in the medium term, CBO estimates. The rate falls as real GDP grows faster than potential GDP during the recovery from the recession; it then stabilizes as real GDP slows relative to potential during the projection's latter years.

No changes have been made since March in CBO's interest rate projections for the period 2004 through 2012. Those estimates add CBO's projection of inflation to a projection of real interest rates. The real rate on three-month Treasury bills will average 2.4 percent during the 2004-2012 period, CBO projects, while the real rate on 10-year Treasury notes will average 3.3 percent. When combined with the projected rates of growth in the CPI-U, those real rates imply nominal rates of 4.9 percent for Treasury bills and 5.8 percent for Treasury notes.

CBO's Projections of Taxable Income

CBO's budget projections are closely connected to its projections of economic activity and national income. But different categories of national income are taxed at different rates, and some are not taxed at all. Therefore, how income is distributed among its various components is a crucial factor in CBO's economic projections. Wage and salary disbursements and corporate profits are particularly important because the effective tax rates on those income components are higher than the rates on other kinds of income.

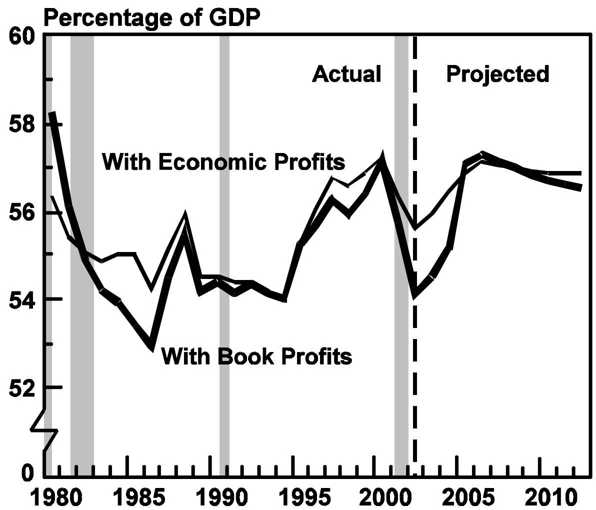
Two of the NIPA measures of corporate profits are key inputs to CBO's forecast. *Book profits*, also known as "before-tax" profits, is the measure most closely related to what firms report to the Internal Revenue Service. That measure depends on tax law. The tax code allows corporations to value their inventories and depreciate their assets at certain rates, and the book measure of profits is designed to reflect those statutory requirements. By contrast, *economic profits* reflect the values and depreciation rates that economists believe more truly represent current inventories and the economic usefulness of the capital stock.

As mentioned earlier, the economic stimulus bill that was signed into law in March of this year—the Job Creation and Worker Assistance Act of 2002—permits firms, for a three-year period, to depreciate some of their capital stock much more rapidly than they would have if they had used the true economic depreciation rate. Because of that provision, the difference between book profits and economic profits between September 11, 2001, and September 10, 2004, will be much larger than normal (*see Figure 2-15*).

The initial rise and subsequent fall of the shares over the period reflects, among other influences, changes in the amount of depreciation, which reduces the profits component of taxable income. The share of income claimed by depreciation falls through 2006—as a delayed con-

Figure 2-15.

Wages and Salaries Plus Corporate Profits



Sources: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis.

Note: Economic profits are corporate profits from current production—that is, adjusted for changes in the value of inventories and for capital depreciation. Book profits are profits reported by corporations with adjustments to make them consistent with the conventions of the national income and product accounts.

sequence of the downturn of investment in the recession—before rising again.

The various income shares are significantly lower on average over the projection period than CBO forecast last March. The revisions to the NIPAs in July indicated that the nontaxable portion of labor income (for example, the employer-provided share of medical insurance premiums) was a much higher percentage of GDP in recent years than had been previously reported. Similarly, business interest payments, which are deductible expenses, were revised upward. CBO's projections largely carry forward those higher percentages, which reduce the projected shares of wages and salaries and of corporate profits.

Sources of Uncertainty in the Medium Term

If the actual growth rates of key variables persistently deviate even a little from the assumptions that are built into CBO's projections, the differences can have very large effects on estimates of output and income and hence on CBO's budget projections.[13] Two important areas of uncertainty over the medium term are the growth of the labor force, particularly the influence of immigration, and the pace and diffusion of innovation and new technology. Actual output growth could vary further from CBO's projections if key ratios, such as the investment-to-output ratio, do not return to their historical averages. Of particular concern for revenue projections is the risk that the ratios between taxable and nontaxable income might follow a different path than the one incorporated in CBO's economic estimates.

13. See Congressional Budget Office, "How Changes in Assumptions Can Affect Budget Projections," in *The Budget and Economic Outlook: Fiscal Years 2003-2012* (January 2002).